General

Guideline Title

Frailty in elderly people.

Bibliographic Source(s)

Regional Health Council. Frailty in elderly people. Florence (Italy): Regione Toscana, Consiglio Sanitario Regionale; 2013. 59 p. [150 references]

Guideline Status

This is the current release of the guideline.

Recommendations

Major Recommendations

The levels of evidence (I–VI) and strength of recommendations (A–E) are defined at the end of the "Major Recommendations" field.

Suspecting Frailty

Opportunity Approach

This kind of approach is used by health professionals. Some researchers have stated that listening to the patient's narrative and observing attitudes and emotion manifestations in clinical practice allows them to use intuition as a clinical method.

Clinicians suspect frailty syndrome using a clinical approach centered on listening (see box below), and therefore on the basis of their "narrative competence."

The opportunity approach can be used:

- By general practitioners within a primary care setting
- While referring to territorial and hospital specialists
- While referring to social and health services

Box. Opportunity Approach

Advice for the Opportunity Approach
• Questions about the organization of the day (when do you wake up, do you go shopping and when, who makes meals, who cleans the house, who does laundry, how do you spend the day, what were your job duties).

Advice for the Opportunity Approach

- Questions about personal grooming and hygiene (autonomy in personal hygiene, in dressing, in toileting, problems chewing).
- Questions about feeding: if eats solid or liquid foods; what kind of food does he/she eat; amount of water drunk during the day; constipation.
- Observation of the patient: posture and mobility.
- Questions about pharmacological therapy (if possible, ask for the packages of all currently prescribed drugs or the available medical documentation).
- Assessment of physical status: assessment of oral cavity, thinness, muscle observation and palpation, hand grip strength measurement, visual acuity and hearing assessment, tests for limb coordination and neck mobility, Short Physical Performance Battery (SPPB).

NB. Visit patient's home whenever possible to assess home environment.

Screening of Target Population (Proactive Approach)

Recommendation 1A: Subjects over 75 should be always considered potentially frail. The suspicion of frailty can be based on observation and/or the patient's narrative, gathering information on health status and in particular on mobility, cognitive function, feeding and life habits, and sensory functions (evidence VI A).

Recommendation 1B: Frailty can be suspected by healthcare professionals following an opportunity approach, and in particular:

- Within a primary care setting
- While referring to specialists
- While referring to social and health services

The use of mailed questionnaires, in terms of health policy, can allow a preliminary screening of the subjects at risk, before their direct clinical observation (evidence VI A).

Assessing and Confirming Frailty

Recommendation 2: If frailty is suspected, the elder adult should be evaluated:

- Using the SPPB test (see box below)
- Assessing loss of bodyweight, reduced physical activity and fatigue

Assessment should be carried out by specifically trained professionals (evidence IV A).

Box. SPPB

Short Physical Performance Battery (SPPB)

1. Balance assessment in 3 tasks:
   - Standing with his/her feet together for 10 seconds
   - Maintaining semitandem position for 10 seconds (heel of one foot placed by the big toe of the other foot)
   - Maintaining tandem position for 10 seconds (heel of one foot in front of and touching the toes of the other foot)

   Grading varies from a minimum of 0 if the patient is unable to hold the feet together position for at least 10 seconds, to a maximum of 4 if the patient is able to complete all the three tasks.

2. Walking assessment (4 meters)
   Grading of this section varies on the basis of time needed to complete the test, from 0 if unable, to 4 if completes the task in less than 4 seconds.

3. Assessment of the ability of standing up from a chair 5 times without using the upper limbs (arms should be kept folded across the chest)
   Grading varies from 0 if unable, to 4 if able to complete the task in less than 11 seconds.

SCORE	0	1	2	3	4
Balance	Side-by-side stand <10"	1–9"	1–2"	3–9"	>10"
Walking (4 meters)	Unable	>7,5"	5,5–7,5"	4–5,5"	<4"
Chair stands	Unable	>16,5"	13,7–16,5"	11,2–13, 6"	<11,2"

Recommendation 3: Frailty in an older adult is confirmed if at least 3 of the following conditions are present:

- Unintended weight loss (≥5% during the last 12 months)
- Rapid onset of fatigue in carrying out daily activities
- Reduced weekly frequency of physical activity
- Reduced gait speed (SPPB-gait test ≤3)
- Reduced muscular strength (SPPB-chair test ≤2)
  (evidence IV A)

Analyzing Frailty

Recommendation 4: Older adults in whom a frailty status has been identified should be assessed for:

- Functional status (instrumental activities of daily living [IADLs])
- Clinical status
- Cognitive function and psychological and affective status
- Pharmacological treatments
- Social, economic and environmental conditions
- Individual preferences, needs and values

The assessment is included within the multi-professional group of primary care, relying on support from other healthcare professionals where necessary (evidence I A).

Preventing Progression of Frailty

Recommendation 5: Frailty is caused by several concomitant factors whose main aspect is the progressive reduction of muscular strength and bodyweight. Therefore, the main strategies to stabilize the system and control frailty are promoting physical activity and monitoring diet and bodyweight (evidence III A).

Recommendation 6: A subject defined frail should be regularly monitored and assessed within a primary care setting using specific tools for data collection.

The general practitioner should identify and coordinate all necessary actions to be taken to solve problems related to frailty, with support from other health professionals and social workers if needed (evidence II A).

Hospitalization of Frail People

Evidence is available confirming the effectiveness of discharge planning (DP) in limiting re-hospitalization, also specifically referring to frail subjects. The box below shows the principles of discharge planning as elaborated by the Department of Veterans' Affairs of the Australian Government (http://www.dva.gov.au/service_providers/dental_allied/discharge_planners/Documents/dprk.pdf).

Box. Discharge Planning

Principles of Discharge Planning (DP)

- Hospitalization should be considered an opportunity to identify frail subjects, to assess their global health, to define recommendations, and to start long-term actions coordinated by the general practitioner along with other health professionals.
- An effective DP is the standard for all patients receiving hospital care in National Health Services.
- A DP is a global approach to health that underlines the importance of continuity in healthcare provision and launches a strong message on preferring longitudinal care rather than episodic care.
- The DP is part of the care plan and includes both hospitalization and all therapies, treatments and care provided after discharge.

Recommendation 7: A possible condition of frailty should be identified in older adults at admission to the hospital. This can be done gathering already known data and through suspected diagnosis and/or adequate diagnostic tools.

Hospitalized frail subjects should be taken in charge using the Geriatric Multidimensional Assessment method to avoid adverse events and progression to disability.

The arrangement of the personalized Discharge Planning should start at the moment of admission to hospital (evidence I A).

Sharing of Information and Bioethical Aspects

Sharing information is consequent to the bioethical principles shown in the box below.

Box. Bioethical Principles of Information

Information on frailty should be managed with adequate means to protect patients' sensitive data. Consent should be obtained to disseminate data.

Communicating and informing frail elder patients to obtain their consent can be difficult due to a possible progressive reduction of their cognitive competence and their relationship with families, which are often very present and actively participate relating with the caregivers.

The difficulties raised by interacting with frail older adults should not affect the ethical integrity of the processes involving them, neither should elder patients be deprived of their rights, including the right of self-determination.

Gathering data on frailty in a computer system results in the creation of a precious set of data that can be very useful to expand our knowledge on frailty, and to carry out epidemiological studies and clinical pharmacology trials.

Considering the complexity of this specific subject, its ethical weight, and the legitimacy issues related to the transmission of data, all the recommendations included in the present guideline should be complemented with the ethical and deontological indications from the competent bioethical commission.

Recommendation 8: Information on subjects' frailty should be updated and available, if possible, through a computer system covering each step of the healthcare network (evidence I A).

Definitions:

Level of Evidence

I. Evidence from randomized controlled clinical trials and/or systematic reviews of randomized trials.
II. Evidence from one single adequately designed randomized trial.
III. Evidence from non-randomized cohort studies with concurrent or historical control or their meta-analysis.
IV. Evidence from non-controlled retrospective case-control studies.
V. Evidence from non-controlled case-series studies.
VI. Evidence from experts' opinions or opinions from panels as indicated in guidelines or consensus conferences, or based on opinions from members of the work group responsible for this guideline.

Strength of Recommendations

A. Carrying out the specified procedure or diagnostic test is strongly recommended. The recommendation is supported by good-quality evidence, even if not necessarily type I or II.
B. It would be inappropriate to always recommend the specified procedure or intervention, considered the still existing doubts, but it should anyway be carefully considered.
C. Significant uncertainties exist against recommending to carry out the specified procedure or intervention.
D. The specified procedure is not recommended.
E. The specified procedure is strongly not recommended.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Frailty characterized by five points:

- Weight loss

- Fatigue
- Reduced muscular strength (hand-grip)
- Reduced physical activity
- Reduced walking speed

Guideline Category

Diagnosis

Evaluation

Management

Prevention

Clinical Specialty

Family Practice

Geriatrics

Nursing

Preventive Medicine

Intended Users

Advanced Practice Nurses

Health Care Providers

Nurses

Occupational Therapists

Physician Assistants

Physicians

Psychologists/Non-physician Behavioral Health Clinicians

Public Health Departments

Social Workers

Guideline Objective(s)

- To provide tools to identify frail subjects
- To provide indications on possible interventions to prevent disability, that is, a limited ability to act due to a handicap

Target Population

Non-disabled older adults

Interventions and Practices Considered

Diagnosis/Evaluation

1. Screening of subjects at risk
    - Opportunity approach
    - Short physical performance battery (SPPB) test
    - Assessment of loss of bodyweight, onset of fatigue, and reduced physical activity, gait speed, and muscular strength
2. Assessment of frail subjects within the multi-professional group
    - Functional status
    - Clinical status
    - Cognitive function and psychological and affective status
    - Pharmacological treatments
    - Social, economic, and environmental conditions
    - Individual preferences, needs and values

Management/Prevention

1. Promoting physical activity and monitoring diet and bodyweight
2. Monitoring and assessment using specific tools for data collection
3. Use of the Geriatric Multidimensional Assessment method to avoid adverse events and progression to disability in hospitalized patients
4. Personalized discharge planning (DP) when hospitalized
5. Keeping updated frailty information

Major Outcomes Considered

- Functional delirium during hospitalization
- Functional deterioration of balance, walking and standing up
- Morbidity and mortality

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

After consulting Tripdatabase, Google Scholar and Google Books, the authors searched Medline via Quertle, and PubMed. They then handsearched the *New England Journal of Medicine (NEJM)*, the *Journal of the American Medical Association (JAMA)*, the *British Medical Journal (BMJ)*, and *The Lancet*. The time frame was 1990 to 2012. All papers were examined. The first term searched was "frailty" which was joined (AND) to terms related to each guideline chapter.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Level of Evidence

I. Evidence from randomized controlled clinical trials and/or systematic reviews of randomized trials.
II. Evidence from one single adequately designed randomized trial.
III. Evidence from non-randomized cohort studies with concurrent or historical control or their meta-analysis.
IV. Evidence from non-controlled retrospective case-control studies.
V. Evidence from non-controlled case-series studies.
VI. Evidence from experts' opinions or opinions from panels as indicated in guidelines or consensus conferences, or based on opinions from members of the work group responsible for this guideline.

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Five steps were followed: I) definition of the issues; II) literature search; III) critical appraisal; IV) draft of recommendations; V) final recommendations.

Rating Scheme for the Strength of the Recommendations

Strength of Recommendations

A. Carrying out the specified procedure or diagnostic test is strongly recommended. The recommendation is supported by good-quality evidence, even if not necessarily type I or II.
B. It would be inappropriate to always recommend the specified procedure or intervention, considered the still existing doubts, but it should anyway be carefully considered.
C. Significant uncertainties exist against recommending to carry out the specified procedure or intervention.
D. The specified procedure is not recommended.
E. The specified procedure is strongly not recommended.

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Not stated

Description of Method of Guideline Validation

Not applicable

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Appropriate diagnosis and management of frailty in elderly people

Potential Harms

Not stated

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Chart Documentation/Checklists/Forms

Foreign Language Translations

Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

End of Life Care

Living with Illness

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

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Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2013

Guideline Developer(s)

Regione Toscana, Consiglio Sanitario Regionale - State/Local Government Agency [Non-U.S.]

Source(s) of Funding

Regione Toscana, Consiglio Sanitario Regionale

Guideline Committee

Regional Health Council

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Financial Disclosures/Conflicts of Interest

All authors of the present guideline, chosen on the basis of their specific knowledge and experience, subscribed a declaration in relation to possible conflicts of interests that may have affected the elaboration of this document. All authors participated in the elaboration of this document within their activities for the Tuscany Health System.

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Available in Portable Document Format (PDF) in English and Italian from the Regione Toscana, Consiglio Sanitario Regionale Web site.

Availability of Companion Documents

The appendices of the original guideline document contain various diagnostic tools, checklists, and questionnaires for the assessment of frail older adults and care plans for assisting frail older adults.

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI Institute on March 13, 2014. The information was verified by the guideline developer on March 20, 2014.

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